

Date: Thu, 28 Jul 94 04:30:22 PDT
From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>
Errors-To: Ham-Digital-Errors@UCSD.Edu
Reply-To: Ham-Digital@UCSD.Edu
Precedence: Bulk
Subject: Ham-Digital Digest V94 #253
To: Ham-Digital

Ham-Digital Digest Thu, 28 Jul 94 Volume 94 : Issue 253

Today's Topics:

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 TheNet and AEA PK-96 ??
 WANTED: TCP/IP network PS maps
 Wireless modem with GMSK and PLL

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>
Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Digital Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-digital".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Wed, 27 Jul 1994 19:25:06 GMT
From: rd1.racal.com!rm1.interlan.com!tavernin@uunet.uu.net
Subject: DJ6HP and BARTG HF modem designs
To: ham-digital@ucsd.edu

Where could I get information on the DJ6HP and BARTG HF modems!?

Also ... is the RTTY Journal still being published ... if it is would
some kind soul send me their address ...

Thanks,

Victor Tavernini, KE4JMY
Racal-Datcom, Inc.

tavernin@sun1.interlan.com

Date: 28 Jul 94 12:27:41 NZST
From: ihnp4.ucsd.edu!munari.oz.au!comp.vuw.ac.nz!newshost.wcc.govt.nz!
kosmos.wcc.govt.nz!parnell_j@network.ucsd.edu
Subject: G3RUH modem request
To: ham-digital@ucsd.edu

G3RUH Modem.

As a result of my query on usenet re the G3RUH modem, I can now
pass on the following information.

The modem is fully described in the 7th Computer Networking
Conference. ARRL 1988. (pp135 to 140). The article includes a
circuit diagram of the modem. Copies of this article are
available from ARRL at \$3.00 each. Send email to tis@arrl.org
requesting the copy (you'll be billed for the \$3.00). Or, if the
7th CNC Proceedings are still in stock, you'd be able to purchase
a copy of the whole proceedings for not much more. (Call 203-666-
1541 to determine if it's in stock). This info from Jon Bloom
jbloom@arrl.org. The paper concludes with a section on the
availability of printed circuit boards and eproms from the
author, from TAPR, or from Siskin Electronics in the UK.

I now have a copy of the paper, thanks to Steve Davis, ZL2UCX
(steve@trimble.co.nz)

If you ask the modem's designer, James Miller, G3RUH
g3ruh@amsat.org for details, he will send you what is essentially
an abstract of the CNC paper. This includes ordering details if
you wish to purchase direct from him. He can airmail to you,
completely built and tested modems for 56 pounds sterling (or \$US
112.00 in cash) or the PCB plus eproms plus DACs for 30 pounds
sterling (or \$US 60.00 (cash). These prices are given in his
information sheet: Issue 3.6, 1993 Apr 01.

TAPR also have a 9600 baud modem for sale in kitset form.
For details, use their file server: file-request@tapr.org
Use 'enter' for the subject. If you send HELP as the message

body, it will send you instructions. If you send INDEX or DIR as the message body it will send you a directory of all of their files. This is worth getting.

For details of their modem and other relevant information, you send in the message body:

```
get /pub/tapr/9600modm.txt
get /pub/tapr/pricelst.txt
get /pub/tapr/taprkits.txt
quit
```

Other files on their file server might be of interest to you.

In particular, TAPR and AMSAT have just announced their DSP-93 kit, which initially will:

"contain the following software: 1200 baud AFSK, 300 baud AFSK, 1200 PSK, 9600 FSK terrestrial, 9600 FSK full-duplex for satellite operations, and various audio filters. These have been developed, tested, and have been in use during alpha/beta-testing.

Software currently under test, which may or may not be released with the first batch of kits include: APT, Digital Oscilloscope, SSTV, and HF modes. User interface software for DOS and Windows is also under development and testing."

The complete kit sells for \$US430.

For full details, get: /pub/tapr/dsp93.txt from the TAPR file server as described above.

4800 baud packet is one of the modes used in Sydney, Australia. They use the HAPN modem with some local modifications to improve the performance. A description of this modem can be found in Ham Radio, August 1988.

Kevin, VK10K says: "We have found 4800 baud to be a good general usage speed, a nice step up over 1200, and not too affected by signal reflections and phase shifts. 9600 baud in our experience is fine for point to point work with beams but not for general omnidirectional usage due to the effects of reflections etc."

So there you have it. It has been an interesting study and my sincere thanks to all who supplied information to enable me to complete it.

73,

Jim Parnell, ZL2APE@ZL2WA.#60.WLG.NZL.OC
parnell_j@cosmos.wcc.govt.nz

Date: Wed, 27 Jul 94 09:46:20 PDT
From: news.sprintlink.net!crash!bssbbs!tmill493@uunet.uu.net
Subject: Kam
To: ham-digital@ucsd.edu

The newer Kam pluses have a bettery backup, and you can order an enhancement board for the older Kams which will have the battery backup. otherwise you will have to reset it....

While we are on the subject of the KAM, I do have one, and it does have the enhancement board. I do have auto forwarding and reversal. My question is this. Does the firmware support the means of transferring a bulletin to another system. I don't mean a full service system. Say for example, I want all ARRL bulletins to be forwarded to the DEC's personal mailbox, but only the ARRL bulletins. Nothing else. I don't think there is, will probably have to do it myself. Thanks, and 73, Tuck, KC6ZEC

Date: Wed, 27 Jul 1994 05:24:49 -0500
From: ihnp4.ucsd.edu!news.cerf.net!thewire.com@network.ucsd.edu
Subject: KAM stuff.
To: ham-digital@ucsd.edu

You may want to find out what version of "firmware" the Kam has. It could be quite old and you may want to get upgraded along with a battery clock backup chip that you can purchase direct from Kantronics. Suggest you get version of firmware first before calling Kantronics so you can address you problem directly with technician there. Carl used to be one of their experts. Haven't used my Kam for a few years since I moved. Good luck

Date: 26 Jul 1994 21:56 CDT
From: pacbell.com!well!barrnet.net!agate!howland.reston.ans.net!swrinde!news.uh.edu!elroy.uh.edu!st3qi@ames.arpa
Subject: KAM stuff.
To: ham-digital@ucsd.edu

I acquired a used KAM about a month ago and am worried about something.

Is this unit supposed to "remember" the time when I shut it off? Does it have battery backup for the clock? Every time I turn it on, I have to set the time and date.

If this thing has a battery, is it common or do I have to get it from Kantronics? Any help would be appreciated.

--

Brad A. Killebrew N5LJV, EMT-B	Student of Computer Engr Technology
President, University of Houston ARC	University of Houston, Texas
Internet: st3qi@jetson.uh.edu	U of H Amateur Radio Club WB5FND
AmprNet : n5ljv@sugarland.ampr.org	uharc@post-office.uh.edu
Packet : n5ljv@f6cnb.#setx.tx.usa.na	713-743-4070 Fax 743-4032
AT&Tnet : 713-852-8523 Fax 852-2630	Box 85-T2, 4800 Calhoun, 77204-4083

Date: 27 Jul 1994 15:17:57 GMT
From: nwnexus!krel.iea.com!comtch!jayt@uunet.uu.net
Subject: KAM stuff.
To: ham-digital@ucsd.edu

Brad Killebrew N5LJV (st3qi@elroy.uh.edu) wrote:
: set the time and date.
: If this thing has a battery, is it common or do I have to get it from
: Kantronics? Any help would be appreciated.

It doesn't have a battery and yes must be reset. However, you can upgrade it to the latest version which has a battery and more memory and will be compatible with the latest EPROM revisions.

--

Jay Townsend, Ws7i < jayt@comtch.iea.com >

Date: Wed, 27 Jul 1994 16:20:51 GMT
From: world!dts@uunet.uu.net
Subject: KAM stuff.
To: ham-digital@ucsd.edu

The KAM (not Plus) had an option for a battery backed clock, but did not include it inherently. There is a KAM Enhancement Board, that adds lots of stuff, including a battery backed clock, latest firmware, support for newer protocols, larger mailbox...

Call Kantronics and talk with them about it.

— —

Daniel Senie	Internet:	dts@world.std.com
Daniel Senie Consulting		n1jeb@world.std.com
508-779-0439	Compuserve:	74176,1347

Date: 27 Jul 1994 15:00 CDT
From: agate!howland.reston.ans.net!europa.eng.gtefsd.com!news.umbc.edu!eff!
news.duke.edu!news-feed-1.peachnet.edu!darwin.sura.net!news.sesqui.net!bti!
news.uh.edu!elroy.uh.edu!@ihnp4.ucsd.edu
Subject: KAM time.
To: ham-digital@ucsd.edu

Thanks for all the messages concerning the KAM time stuff. To cure my problem I've written a short routine in BASIC that sets the KAM's clock when I boot my computer, or by command at the dos prompt. If anyone wants a copy, let me know. I've started the code to write it in C, but it'll take me a few days to complete it.

Also, (I better not mention his name without his permission) a fellow ham wrote me a message saying he wrote the same thing but in Procomm Script format. Got some good ideas floating around.

Thanks for all your input.

— —

Brad A. Killebrew N5LJV, EMT-B		Student of Computer Engr Technology
President, University of Houston ARC		University of Houston, Texas
Internet: st3qi@jetson.uh.edu		U of H Amateur Radio Club WB5FND
AmprNet : n5ljv@sugarland.ampr.org		uharc@post-office.uh.edu
Packet : n5ljv@f6cnb.#setx.tx.usa.na		713-743-4070 Fax 743-4032
AT&Tnet : 713-852-8523 Fax 852-2630		Box 85-T2, 4800 Calhoun, 77204-4083

Date: Wed, 27 Jul 94 22:35:38 EDT
From: ihnp4.ucsd.edu!news.acns.nwu.edu!math.ohio-state.edu!howland.reston.ans.net!
news.cac.psu.edu!news.pop.psu.edu!psuvax1!ukma!ukcc.uky.edu!
JDVANH00@network.ucsd.edu
Subject: Mobile phone via 2M?
To: ham-digital@ucsd.edu

I'm not sure if this is the best group to post my question to, but: is it possible using 2M band, combined with my Mac and home telephone to rig up a system that would allow me to use my phone remotely, say within a 20 mile

radius, i.e. "free" mobile service? Would that be legal...?

Thanks much,

JD VanHoose

Date: Wed, 27 Jul 1994 07:33:23 -0500 (CDT)
From: pa.dec.com!jpunix.com!perry@decwrl.dec.com
Subject: Need xNOS for FreeBSD
To: ham-digital@ucsd.edu

I am looking for ANY xNOS that will run under FreeBSD 1.1. I have an Internet connection and I am interested setting up a NOS port for my TNC.
Any advice or help would be greatly appreciated.

73

John Perry - KG5RG

--

John A. Perry - perry@jpunix.com

Finger perry@jpunix.com for PGP 2.6 public key.

Date: Wed, 27 Jul 1994 13:44:26 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!usenet.ins.cwru.edu!nshore!seastar!vikki@network.ucsd.edu
Subject: NOSVW304.zip corrupt on all the ftp servers ? Plse help !
To: ham-digital@ucsd.edu

Hi All,

I picked up two different copies of nosvw304.zip off a couple different ftp servers and both copies are corrupted.

I checked archie and other copies I found matched the size of the two I downloaded *exactly*:

-rw-r--r-- 1 root root 682260 Jul 24 00:37 nosvw304.zip

Any suggestions appreciated ! I find it just a bit hard to believe

that I am the only one that has tried to get this and unless something else is wrong (?) I am out of ideas :-).

BTW: I don't think anything is wrong here as anything else I have gotten (zipped) comes apart just fine.

I have some delusions :-) about linking the network host to a nos box and since it has been awhile since I have been on tcp/ip (ampr), this seemed like a good place to start.

Thanks in advance !

Take care es 73, Vikki

--

Vikki Welch, Net/SysAdmin, Welch Research Labs, WV9K, DoD#-13, TEAM TSE
vikki@seastar.org [198.134.137.1] - I am The NRA.

'Two of the gravest general dangers to survival are the desire for comfort and a passive outlook.' -- U.S. Army Ranger Handbook

Date: 26 Jul 1994 12:52:00 -0400

From: news.bu.edu!dartvax.dartmouth.edu!saturn.caps.maine.edu!

gatekeeper.ddp.state.me.us!nobody@purdue.edu

Subject: Packet Ragchews on HF

To: ham-digital@ucsd.edu

Roger Buffington (rogjd@netcom.com) wrote:

: John Hunley (hunley@mti.com) wrote:

: : I'm relatively new to packet, so pardon the "newbieism" of this
: : question, but I'm stumped:

: : I have a nice HF packet setup: a Yaesu FT-890AT driving a Cushcraft
: : R7, talking to a KAM-Plus. I hear lots of packet-sounding stuff on
: : HF, but when I tune to it, the KAM seems to decode mostly RR packets,
: : with a few C and DM packets. The very rare I packet seems to contain
: : ASCII garbage, like two BBSs exchanging binary files or something.

: : When I try to connect to one of these stations, I either get no
: : connection at all, a connect followed by an immediate disconnect,
: : or a message to the effect that "only members are allowed on this
: : node." I have yet to make my first successful QSO using packet.

: : Now if I want to talk to a BBS, I don't need to use a radio for
: : that. There are plenty of BBSs within a local phone call of my
: : house. I was kinda hoping to make the same kind of QSOs using packet
: : that I was making using CW or voice.

: : Is there something I'm doing fundamentally wrong, or is there no good
: : old "CQ CQ CQ - Tnx fer call OM, name is John..." type activity on
: : HF? Are there certain subbands where the ragchewers and DXers go,
: : that I just haven't found yet? I know that most packet is on VHF,
: : but I don't have a VHF rig, and even if I did, I don't particularly
: : want to limit my QSOs to stations within a 10-mile radius (yes, I've
: : heard of digipeaters).

: : --

: : John Hunley, KN6XZ

: Hi John! You will find, I think, that there is very little ragchewing
: done on HF Packet. Mainly, HF packet is automated forwarding, leavened
: with a few BBSs. The bottom line is that AX.25 is ill-suited for HF.

: Don't despair though! Lots of ragchewing on amtor, pactor, and rtty on
: HF. Primary bands for amtor/pactor are 14/7.065-14/7.085. Rtty:
: 14.080-14.090, 7.065-7.080. All freqs are approximate.

Had many packet ragchews on HF. Try 10.145 or 18.105, these freqs seem
to be the most active and by convention used only for ragchewing.

Date: Wed, 27 Jul 1994 17:57:01 GMT
From: ihnp4.ucsd.edu!sdd.hp.com!cs.utexas.edu!howland.reston.ans.net!usc!
elroy.jpl.nasa.gov!netline-fddi.jpl.nasa.gov!nntp-server.caltech.edu!
news.cerf.net!mvb.saic.com!eskimo!rdonnell@network
Subject: TheNet and AEA PK-96 ??
To: ham-digital@ucsd.edu

Bob Donnell (rdonnell@eskimo.com) wrote:

: Not unless someone does a special version for it. AEA TNCs are >not< TNC2
: clones.
: -----

Additional clarifications... an AEA PK-80 is a TNC-2 clone. An AEA PKT-1
is a TNC-1 clone with a revised circuit layout and power supply. All other
newer AEA TNCs are original AEA designs, and not TNC-2 compatible. As an
ex-employee I don't speak for AEA, I just know these things, and share.

73

--

Bob Donnell, kd7nm bob@ethanac.kd7nm.ampr.org rdonnell@eskimo.com

Western Washington Amateur IP Address Coordinator (206) 775-3651

Date: 27 Jul 1994 13:02:28 -0400
From: ihnp4.ucsd.edu!agate!darkstar.UCSC.EDU!news.hal.COM!olivea!spool.mu.edu!
howland.reston.ans.net!noc.near.net!chaos.dac.neu.edu!not-for-
mail@network.ucsd.edu
Subject: WANTED: TCP/IP network PS maps
To: ham-digital@ucsd.edu

Hello.

I am looking for up-to-date postscript (or any other pictorial format)
maps of TCP/IP (AMPRnet) networks.

Please point me in the direction of any and all maps, and I will include
them in the Boston ARC archives on oak.oakland.edu.

Thanks much for any pointers/help you can offer.

Scott

--
Scott Ehrlich, Amateur Radio Callsign: wylz wylz@ka2jxi.ny [AX.25 Packet]
How to reach me: wylz@neu.edu [Internet], wylz@k2cc.ampr.org [TCP/IP Packet]
Boston ARC ftp archives: ftp oak.oakland.edu /pub/hamradio
Boston ARC Web page: <http://www.acs.oakland.edu/barc.html>

Date: Wed, 27 Jul 1994 18:09:42 GMT
From: ihnp4.ucsd.edu!sdd.hp.com!cs.utexas.edu!howland.reston.ans.net!usc!
elroy.jpl.nasa.gov!netline-fddi.jpl.nasa.gov!nntp-server.caltech.edu!
news.cerf.net!mvp.saic.com!eskimo!rdonnell@network
Subject: Wireless modem with GMSK and PLL
To: ham-digital@ucsd.edu

J. den Ouden (denouden@inter.NL.net) wrote:
: I'm trying to design a wireless modem for 900 MHz.

: The 900 MHz is synthesized by a VCO. Spectral purity and RF carrier
: frequency stability demand a PLL for the VCO control voltage.

: Jan den Ouden

In addition to the methods mentioned, I've seen a technique that General Electric used in some of their commercial mobile radios. That is that you directly modulate your reference oscillator and force the VCO to track those changes. In this particular scheme the frequency is not digitally synthesized (i.e. no divide-by-n counter). For VHF (140-170 MHz) the crystal frequency was 1/16th of the desired TX frequency, and modulated with a varactor. The VCO operated at the desired TX frequency. The phase detector operated at 1/4 TX frequency (4 times crystal frequency). Pretty obviously there were two doublers following the oscillator. These fed a bandpass filter, then on to the phase detector. At I recall, the VCO was buffered and fed to a D flip-flop which fed a second D 'flop, which fed the phase detector. Because of the high reference frequency, the loop filter was fast enough to allow easy tracking of the 9600 bps modulation.

73, Bob

--

Bob Donnell, kd7nm bob@ethanac.kd7nm.ampr.org rdonnell@eskimo.com
Western Washington Amateur IP Address Coordinator (206) 775-3651

End of Ham-Digital Digest V94 #253
